

Serial No. 10/790,040

Attorney Docket No. 01-561

LISTING OF CLAIMS:

The following listing of claims replaces all previous versions and listings in the present application.

1. - 14.(Canceled)

15. (Currently amended) A magnetic sensor comprising:

a magnetic sensor chip;

a chip mounting member on which the magnetic sensor chip is mounted;

an adhesive material for bonding the magnetic sensor chip to the chip mounting member;

an encapsulating material for encapsulating the magnetic sensor chip; and

a magnetic-field generating portion formed by magnetizing a portion of the encapsulating material,

wherein the magnetic sensor chip comprises multiple magneto-resistance elements (MREs) for forming MRE bridges, each of the multiple MREs having a detection axis, and

wherein the magnetic-field generating portion is locally positioned such that a magnetic field generated by the magnetic-field generating portion is inclined for biasing at an angle of 45 degrees to respective detection axes of the MREs.

16. (Canceled)

17. (Withdrawn) A magnetic sensor comprising:

a magnetic sensor chip;

a chip mounting member on which the magnetic sensor chip is mounted;

Serial No. 10/790,040

Attorney Docket No. 01-561

an adhesive material for bonding the magnetic sensor chip to the chip mounting member;
an encapsulating material for encapsulating the magnetic sensor chip; and
a magnetic-field generating portion formed by magnetizing the encapsulating material,
wherein the encapsulating material is made of a mixture of heat-resistant resin and
magnetic powder, and

wherein the chip mounting member includes a heat-generating portion, the heat
generating portion including a part of the chip mounting member reduced in shape so as to have
an increased resistance, the heat-generating portion generating heat when current is supplied to
the chip mounting member when magnetizing the encapsulating material.